

REMARKS

Applicants appreciate the Examiner's thorough review of the present application, and respectfully request reconsideration in light of the preceding amendments and the following remarks.

Several claims have been amended to better define the claimed invention. Some other claims have been cancelled without prejudice or disclaimer. Claim 49 has been added to provide Applicants with the scope of protection to which they are believed entitled. The amended/new claims find solid support in the original specification, e.g., Equations 1-6 and the corresponding description. No new matter has been introduced through the foregoing amendments.

The repeated *35 U.S.C. 103(a)* rejection relying on *Denkert* and *Chen* is noted. The rejection is traversed for the reasons presented in the previous Amendment which are incorporated by reference herein in their entirety.

In addition, the Office's obviousness rationale manifested in page 5, lines 1-11 is not understood. Specifically, the feature "waiting for end of packet transmission when a voice call is in progress, then increasing transmission power" that the Office considers to be missing in *Denkert* and allegedly found in *Chen* is not recited in the claims. Therefore, it is not clear from the language of the Office Action as to what claim feature *Denkert* does not explicitly teach and how *Chen* is combinable with *Denkert* to cure the deficiency. Clarification is respectfully requested.

Notwithstanding the above and solely for the purpose of expediting prosecution, Applicants have further amended the independent claims to better define the claimed invention. A *clean* version of amended **claim 1** is produced herein below for the Examiner's convenience of reading.

1. A power allocation method of providing a packet data service with a line service in a mobile communication system having a base transceiver station (BTS) for performing wireless communication with a plurality of ~~MSS~~ ~~mobile stations~~ (MSs), the method comprising the steps of:

(a) determining whether or not packet data traffic is generated for a first MS among said plurality of MSs;

(b) if it is determined at (a) that the packet data traffic is generated for the first MS, determining whether or not there is a second MS among said plurality of MSs that is currently using the line service with a call being in progress;

(c) if it is determined at (b) that the second MS is currently using the line service with the call being in progress, determining whether or not there is packet data being transmitted during a current time slot; and

(d) if it is determined that the packet data traffic is generated for the first MS when there is no packet data being transmitted during the current time slot, gradually increasing, at each slot time during a period of time, power allocated to the first MS for providing the packet data service to the first MS;

wherein said method further comprises the step of calculating said period of time which is required for a signal-to-interference ratio (SIR) of the second MS to be restored to a SIR target value when power allocated to the second MS is changed due to the packet data service,

wherein said period of time is calculated from (i) the SIR target value, (ii) peak power of the BTS currently available for the packet data service, and (iii) the power currently allocated to the second MS during the current time slot, and

wherein the power allocated to the first MS at (d) is gradually increased toward said peak power of the BTS.

The amended/added claim language finds support in at least FIG. 6 and the corresponding text in the specification, especially Equation 5 and page 12, lines 13-15. Amended independent claim 1 now recites, among other things, calculating the period of time, which is required for a signal-to-interference ratio (SIR) of the second MS to be restored to a SIR target value when power allocated to the second MS is changed due to the packet data service, based on

(i) the SIR target value,

(ii) peak power of the BTS currently available for the packet data service, and

(iii) the power currently allocated to the second MS during the current time slot.

Denkert discloses a power control scheme in which the transmission power is adjusted based on the queue delay of the packets in a buffer. *See, e.g., Denkert* at Abstract and claim 1. Such queue delay is generally measured, not calculated, unlike the claimed invention.

Further, the *Denkert* queue delay is the time period associated with the MS that requests or uses the packet data service. The claimed time period, to the contrary, is associated with the (second) MS that is currently using the line service.

Finally, the *Denkert* power control scheme does not calculate any time period based on the power currently allocated to the (second) MS that is currently using the line service as recited in the amended claim.

For *any* of the reasons detailed above, Applicants respectfully submit that amended claim 1 is patentable over the art.

Independent **claim 33** includes similar amended/added wordings, and should also be considered patentable.

The **dependent claims, including any new claim(s)**, are considered patentable at least for the reason(s) advanced with respect to the respective independent claim(s).

Each of the rejections has been traversed/overcome. Accordingly, Applicants respectfully submit that all claims are now in condition for allowance. Early and favorable indication of allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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